lane undivided roadway was about 316 per HMVM. Comparatively, the average crash rate for four-lane divided roadways over the same time period was 110 per HMVM. Also, crash rates may decrease because of limited access points onto the expressway.

4. Correct Substandard Roadway Items

Turtle Lake Alternative 4 will correct substandard roadway items that exist on US 8. Currently, there are four areas that have deficient stopping sight distance requirements between 15th Street and 5th Street. This alternative will correct these existing substandard roadway items. Access management as will be used to reduce the number of side street and driveway access points.

5. Public Support

Many residents and business owners support Turtle Lake Alternative 4 and believe that it is best for economic reasons to keep the US 8 route through their community on the existing alignment. Many comments in favor of the Through-town route were received after public information meetings in February and June 2003. Those that do not favor this alternative stated that an expanded roadway would divide the village. The Town of Beaver and the Village of Turtle Lake have both passed resolutions supporting the Through-town Alternative. The Town of Almena also favors Turtle Lake Alternative 4 because it has fewer relocations and the farmland, wetland, and woodland impacts are less than any of the bypass alternatives. The US 8 coalition voted on the alternatives and the result was a three-way tie between Alternatives 2, 3, and 4.

6. Summary of Purpose and Need

Table 2.2.4.5-8 summarizes how Turtle Lake Alternative 4 addresses the purpose and need criteria. This alternative was carried forward for detailed study because it meets the criteria for purpose and need.

Table 2.2.4.5-8

Turtle Lake Alternative 4 (Through-town)
Summary Purpose and Need Analysis

Criteria		Turtle Lake Alternative 4 (Through-town)
Addresses the Corridors 2020 Plan by accommodating future LOS needs		Yes
Long-term planning and corridor preservation		Yes
Reduce crash rates		Yes
Correct substandard roadway items		Yes
Public support from:		
	Village of Turtle Lake	Yes
	Town of Beaver	Yes
	Town of Almena	Yes
	Area residents and businesses	Yes and No
	US 8 Coalition	Yes and No

2.2.4.6 Segment VI (5th Street to Sweeny Pond Creek)

Segment VI, from 5th Street to Sweeny Pond Creek, includes two alternatives. The first alternative is on-alignment through Poskin, and the second alternative is a southern realignment around Poskin. Figure 2.2.4.6-1 illustrates this segment.

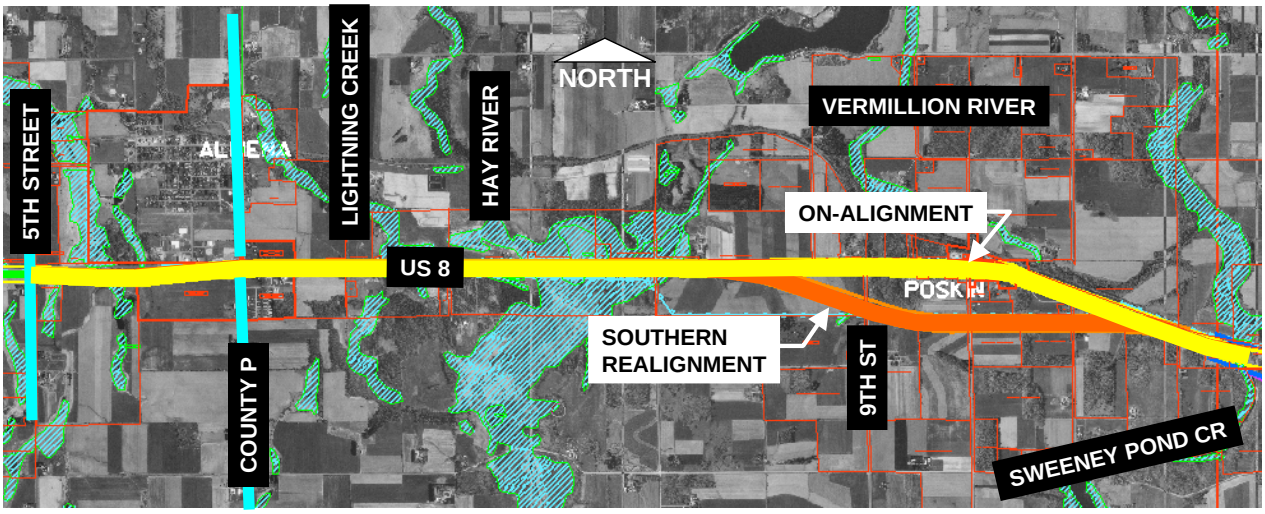

Figure 2.2.4.6-1 Segment 6 – 5th Street to Sweeny Pond Creek

- **Poskin On-alignment** (carried forward for detailed study)

A. Description of Alternative

The Poskin On-alignment is a four-lane rural expressway with a 60-foot (18.3 m) median. The alternative utilizes the existing roadway alignment from 5th Street to County P. The alignment then shifts slightly south to avoid both the Lightning Creek Wildlife Area and a cemetery located on the north side of US 8. The alignment continues shifted slightly south of the existing highway to avoid impacting residences and businesses on the north side of the highway through Poskin. The total length of this segment (5th Street to Sweeny Pond Creek) is 5.8 miles (9.3 km). The Poskin On-alignment Alternative uses at-grade intersections for access but would also close some access points.

B. Projected Effects of Alternative

From 5th Street to about County P, the Poskin On-alignment Alternative utilizes the existing roadway as two westbound lanes and constructs two new eastbound lanes south of existing. From County P east, the alignment shifts slightly to the south to avoid impacts to the Lightning Creek Wildlife Area and a cemetery, both located on the north side of US 8. This would require constructing a completely new roadway. New structures would be required over Lightning Creek, the Hay River, and Sweeny Pond Creek.

The Poskin On-alignment does not affect any archaeological or historic sites. It does require some agricultural land and relocation of many businesses and residences compared to the Poskin Southern Realignment. Some of these businesses and residences are located along the corridor outside of Poskin, but the majority of the relocation impacts are within Poskin. This alternative also substantial estimated costs exceeding $1,000,000 to relocate a portion of the Dairyland Power Utilities.

Table 2.2.4.6-1 illustrates land requirements and relocations for this alternative.

Table 2.2.4.6-1

Poskin On-alignment Alternative
Land Requirements and Relocations Summary

Type of Land	Required Acres	Required Hectares
Agricultural	52.7	21.3
Wetlands	23.6	9.6
Wooded	29.5	11.9
Other	77.3	31.3
Total New Right-of-Way	183.1	74.1
Relocations	19 Businesses, 24 Residences	
Dairyland Power Cooperative	$1,042,000	

C. Purpose and Need Analysis

1. Corridors 2020 and Future LOS

Traffic volumes in this segment are projected to grow from about 7,800 ADT to about 11,300 ADT in design year 2030. According to the WisDOT's FDM, a four-lane divided roadway should adequately handle between 8,700 and 44,000 ADT. Therefore, a four-lane expansion would give this section the capacity to handle projected traffic.

2. Long-Term Planning and Corridor Preservation

This alternative addresses long-term planning by defining the future location and type of access along US 8. This information can be used by local governmental units along the corridor in developing local transportation and comprehensive plans and determining the appropriate location of transportation supportive land uses. This alternative identifies a future corridor for US 8 that can be preserved through the use of expressway/freeway designation, official mapping, and access management.

3. Crash Rate Reduction

Between 1996 and 2000, the crash rates were below the statewide average crash rate. With this alternative, crash rates for this segment will likely decrease. Studies indicate that converting a two-lane roadway to a four-lane divided facility could potentially decrease crashes by 40 to 60 percent.[6] Also, crash rates for a four-lane divided roadway indicate they are safer than a two-lane rural roadway. Between 1996 and 2000, the average crash rate in Wisconsin for a two-lane roadway is 180 crashes per HMVM. The crash rate for a four-lane divided highway for the same time period is 76 per HMVM. Fatality crash rates between 1996 and 2000 decreased from 1.8 per HMVM on a two-lane roadway to 0.5 per HMVM on a four-lane divided roadway. Crash rates may also decrease because of limited access points onto the expressway

4. Correct Substandard Roadway Items

The Poskin On-alignment Alternative would correct roadway deficiencies that exist on US 8. Currently, there are five areas that have deficient SSD requirements between 5th Street and Sweeny Pond Creek. Currently, vehicles must slow down to about 35 mph (56.3 km/hr) because of a horizontal curve on US 8 through Poskin. Also, one intersection is impacted by limited visibility with inadequate vision triangles. This alternative will correct these existing roadway deficiencies. Access management will be improved with the removal of several side street and driveway access points.

[6] Safety Effects of the Conversion of Rural Two-Lane to Four-Lane Roadways Based on Cross sectional Models, Forrest M Council and J. Richard Stewart, 1998.

5. Public Support

A few public comments supported the On-alignment Alternative because it may be easier for residents and businesses in Poskin to purchase a house rather than for the WisDOT to build a new alignment. However, the majority of the comments received do not indicate that the On-alignment alternative would be supported.

6. Summary of Purpose and Need

Table 2.2.4.6-2 summarizes how the Poskin On-alignment Alternative addresses the purpose and need criteria. This alternative was carried forward for detailed study because it meets the criteria for purpose and need.

Table 2.2.4.6-2

Poskin On-alignment Alternative
Summary Purpose and Need Analysis

Criteria	Poskin On-alignment Alternative
Addresses the Corridors 2020 Plan by accommodating future LOS needs	Yes
Long-term planning and corridor preservation	Yes
Reduce crash rates	Yes
Correct substandard roadway items	Yes
Public support from:	
Town of Clinton	No
Area residents and businesses	Yes and No
US 8 Coalition	No

- **Poskin Southern Realignment** (carried forward for detailed study)

A. Description of Alternative

The Poskin Southern Realignment Alternative follows the same alignment as the Poskin On-alignment Alternative until just east of 8th Street. At this point, the alignment runs southeast for about one mile (1.6 km). About a quarter mile (0.4 km) south of existing US 8, the roadway continues east for another mile (1.6 km). When it reaches 10 ½ Street, it follows the same alignment as the Poskin on-alignment until it reaches Sweeny Pond Creek. The total length of this segment from 5th Street to Sweeny Pond Creek is 5.8 miles (9.3 km), with 2.6 miles (1.2 km) of new roadway.

This alternative uses at-grade intersections for access. Existing US 8 would become a local roadway within Poskin.

B. Projected Effects of Alternative

Similar to the Poskin On-alignment Alternative, for most of the segment, this alternative utilizes the existing roadway as two westbound lanes and constructs two new lanes south of existing for eastbound lanes. The alignment remains south to avoid the cemetery and the Lightning Creek Wildlife Area. Just east of 8th Street, this alternative would require a new four-lane divided roadway as it veers south of Poskin. New structures would be required over Lightning Creek, Hay River, and Sweeny Pond Creek.

Similar to the Poskin on-alignment, this alternative does not impact any archaeological or historical sites. This alternative would require about twice as much agricultural land as compared to the On-alignment. The Poskin Southern Realignment alternative will require much fewer relocations. Like the On-alignment Alternative, this alternative also has substantial estimated costs associated with the relocation of Dairyland Power Utilities (about $1.2 million).

Table 2.2.4.6-3 describes the land requirements and relocations associated with this alternative.

Table 2.2.4.6-3

Poskin Southern Realignment Alternative
Land Requirements and Relocations Summary

Type of Land	Required Acres	Required Hectares
Agricultural	105	42.5
Wetlands	23.7	9.6
Wooded	27.7	11.2
Other	55.8	22.6
Total New Right-of-Way	212.2	85.9
Dairyland Power Cooperative	$1,209,000	
Relocations	14 Businesses, 10 Residential	

C. Purpose and Need Analysis

Like the Poskin On-alignment Alternative, the Poskin Southern Realignment Alternative meets the purpose and need criteria (Items 1 through 4). Public comment was mixed but predominantly in favor of the Southern Realignment Alternative.

5. Public Response

Some written comments following the public information meetings were highly in favor of the Poskin Southern Realignment Alternative to preserve the residences and businesses in the community of Poskin. Others were opposed. The US 8 Coalition voted unanimously in favor of the Southern Realignment and the town of Clinton also supports the Poskin Southern Realignment.

6. Summary of Purpose and Need

Table 2.2.4.6-4 summarizes how the Poskin Southern Realignment Alternative addresses the purpose and need criteria Table 2.2.4.6-4. This alternative was carried forward for detailed study because it meets the criteria for purpose and need.

Table 2.2.4.6-4

Poskin Realignment Alternative
Summary Purpose and Need Analysis

Criteria		Poskin Southern Realignment Alternative
Addresses the Corridors 2020 Plan by accommodating future LOS needs		Yes
Long-term planning and corridor preservation		Yes
Reduce crash rates		Yes
Correct substandard roadway items		Yes
Public support from:		
	Town of Clinton	Yes
	Area residents and businesses	Yes and No
	US 8 Coalition	Yes

2.2.4.7 Segment VII (Sweeny Pond Creek to US 53)

Segment VI begins at Sweeny Pond Creek and ends at US 53. This segment has four alternatives that include three bypass routes around Barron and one through-town route. Alternatives A, B, and C are four-lane rural expressway bypass corridors. These corridors are 600-feet (182.9 m) wide when off existing US 8 alignment and 400 feet (121.9 m) wide when they rejoin existing US 8 alignment. Alternative 4 is a 400-foot (121.9 m) wide corridor on existing alignment outside the urban area of Barron and a 100-foot (30.5 m) urban corridor on existing alignment through town. Figure 2.2.4.7-1 illustrates the four alternatives for the corridor segment.

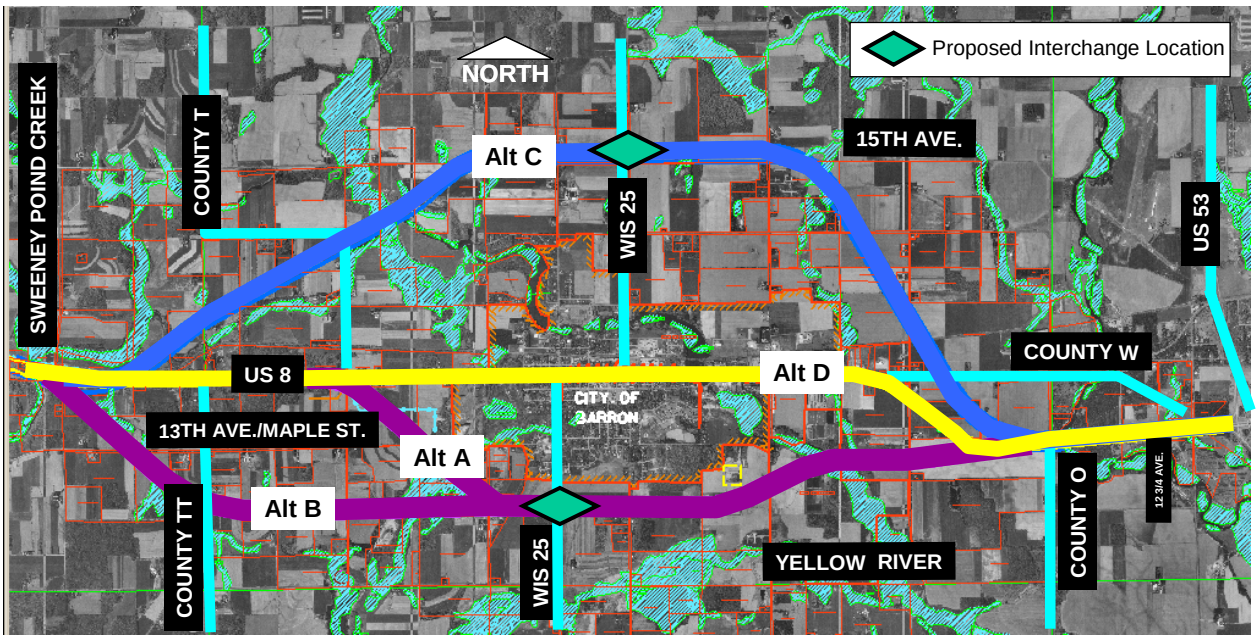

Figure 2.2.4.7-1 Segment VII – Sweeny Pond Creek to US 53

- **Barron Alternative A (Short South Bypass)** (carried forward for detailed study)

A. Description of Alternative

Alternative A bypasses the City of Barron to the south. The four-lane divided rural expressway follows the existing roadway alignment from Sweeny Pond Creek to just west of County T. At this junction, the bypass route runs southeast about 1.3 miles (2.1 km) and then due east, parallel to existing US 8 about one mile (1.6 km) to the south. Near 16th Street, the bypass turns northeast and matches in with existing US 8 just west of 18th Street (County O). The four-lane roadway continues as an expressway for 1.7 miles (2.8 km) to the end of the project at US 53. The total length of this segment is 8.5 miles (13.7 km), which includes 5.1 miles (8.2 km) of new roadway.

With this alternative, there are some at-grade intersections, grade-separated crossings, and one proposed diamond interchange. The one proposed diamond interchange would be at WIS 25 (S) and the existing interchange at the US 53 junction would remain. In addition, some roads would not be grade-separated or have any access to the highway. Instead, cul-de-sacs would be constructed and existing US 8 would be converted into a local street.

B. Projected Effects of Alternative

Barron Alternative A follows the existing US 8 alignment to County T. At this point, new four-lane roadway would be required to County O. At County O, the roadway again follows the existing US 8 alignment until it reaches US 53. With this alternative, new structures would be required over

Quaderer Creek, Yellow River, and the Red Cedar River. Also, a new structure would be necessary for the WIS 25 (S) interchange and the underpasses or overpasses at 15th Street and 16th Street.

Barron Alternative A does not impact any historic or archaeological sites. However, the Paul Revere Center, located at the intersection of West Maple Avenue and 13th Street, could potentially be impacted. If Barron Alternative A is the preferred alternative, a DOE should be done to find out if it is actually eligible for the NRHP. This alternative impacts more agricultural land than the through-town alternative, however it impacts less agricultural land compared to the other bypass alternatives. Barron Alternative A does require the most wooded acreage of the alternatives and Alternative A would have the highest estimated costs to relocate the Dairyland Power Utilities. Of the bypass alternatives, Alternative A also requires the highest number of residential relocations, with most of these relocations located along the existing alignment between Sweeny Pond Creek and County T.

Table 2.2.4.7-1 describes the land requirements and relocations for Barron Alternative A.

Table 2.2.4.7-1

Barron Alternative A (Short South Bypass)
Land Requirements and Relocations Summary

Type of Land	Required Acres	Required Hectares
Agricultural	305.5	123.6
Wetlands	32.3	13.1
Wooded	69.1	28
Other	0	0
Total New Right-of-Way	389.3	157.5
Relocations	1 Business, 21 Residential	
Dairyland Power Cooperative	$833,000	

C. Purpose and Need Analysis

1. Corridors 2020 and Future LOS

Just west of the city of Barron, traffic volumes will increase from 11,600 ADT to about 16,800 ADT and just east of the city, traffic volumes increase from approximately 11,300 to 18,000 ADT. Within the Barron city limits, traffic volumes are projected to increase from 13,900 ADT to 21,000 ADT. According to the WisDOT's FDM, a four-lane divided roadway should adequately handle between 8,700 and 44,000 ADT. Therefore, a four-lane expansion will give this section the capacity to handle projected traffic.

In 2003, WisDOT conducted an OD Study to determine the amount of traffic that would use a bypass around the city of Barron. The OD Study results show that approximately one third of the traffic would use a bypass around Barron. Without a bypass, side-street traffic with stop-control will experience substantial delays at the intersections exhibiting operational problems (LOS D and E). With a bypass, one third of the traffic will be removed and stop-controlled intersections will operate at LOS A and B with a bypass.

2. Long-Term Planning and Corridor Preservation

This alternative addresses long-term planning by defining the future location and type of access along US 8. This information can be used by local governmental units along the corridor in developing local transportation and comprehensive plans and determining the appropriate location of transportation supportive land uses. This alternative identifies a future corridor for US 8 that can be preserved through the use of expressway/freeway designation, official mapping, and access management.

3. Crash Rate Reduction

Crash rates for this alternative will likely decrease. The crash rates for this segment exceeded the statewide average crash rates for urban streets in four of the five years that crashes were analyzed. With approximately a third of the traffic on the bypass, the crash rate for existing US 8 would decrease. Also, crash rates on the bypass segment would be expected to correspond with the lower rate found on freeway segments statewide due to restricted access. Therefore, the two roadways combined would likely have a weighted average crash rate that is below the statewide average.

4. Correct Substandard Roadway Items

Barron Alternative A would correct substandard roadway items that are on US 8. Currently, there are four areas that were found to have deficient SSDs between Sweeny Pond Creek and US 53.

5. Public Support

Some written comments supported Alternative A because it was the shortest route, and for the bypasses, required the least amount of agricultural land. Other comments voiced concern with the additional relocations required between Sweeny Pond Creek and County T. In December 2003, the City of Barron Common Council supported a south bypass of Barron, but stated that either of the two south bypasses would be acceptable. In April 2004, the Barron Common Council voted unanimously to support Barron Alternative A, with a modification at the western end of the alternative. They requested that the alignment be moved south and run parallel to existing US 8 between Sweeny Pond Creek and County T to avoid relocation of the homes in this area.

6. Summary of Purpose and Need

Table 2.2.4.7-2 summarizes the purpose and need criteria for Barron Alternative A. This alternative was carried forward for detailed study because it meets the criteria for purpose and need.

Table 2.2.4.7-2

Barron Alternative A (Short South Bypass)
Summary Purpose and Need Analysis

Criteria		Barron Alternative A (Short South Bypass)
Addresses the Corridors 2020 Plan by accommodating future LOS needs		Yes
Long-term planning and corridor preservation		Yes
Reduce crash rates		Yes
Correct substandard roadway items		Yes
Public support from:		
	City of Barron	Yes
	Area residents and businesses	Yes and No
	US 8 Coalition	No

- **Barron Alternative B (Long South Bypass)** (carried forward for detailed study)

A. Description of Alternative

Alternative B is another south bypass of the city of Barron. At the Sweeny Pond Creek, the alignment turns southeast for about 1.4 miles (2.3 km) to County TT. At County TT the roadway is about one mile (1.6 km) south of existing US 8 and the alignment runs east, parallel with US 8, to WIS 25 (S). At WIS 25 (S), the roadway continues east along the same alignment as Alternative A and connects to existing US 8 near County O, following the existing alignment to US 53. The total length of this segment is 8.5 miles (13.7 km), with 7.2 miles (11.6 km) on new alignment. Figure 2.2.4.7-1shows this alternative.

Access to existing US 8 from the bypass corridor would be provided by at-grade intersections near Sweeny Pond Creek and east of 17th Street. An interchange would provide access at WIS 25 (S). The existing interchange at the US 53 junction would remain. Grade-separated crossings would be provided but no direct access onto the expressway. Existing US 8 would become a local street from Sweeny Pond Creek to east of 17th Street.

B. Projected Effects of Alternative

Alternative B would require an entirely new four-lane divided expressway between Sweeny Pond Creek and County O. At County O, US 8 would follow the existing alignment until it reaches US 53. Alternative B requires new crossings and would need new structures over Quaderer Creek and the Yellow River. Also, a new structure would be required over the Red Cedar Crossing. Other structures would be required at County TT, 15th Street, 16th Street, and 19th Street. Another new structure would be required at the US 8 interchange with WIS 25 (S).

Barron Alternative B does not impact any historic or archaeological sites. The amount of agricultural land required for this alternative would be between the amounts required for Alternatives A and C. Alternative B would require wetland and wooded acreage similar to Alternative A and C requirements, but it would require the fewest relocations. The cost of relocation impacts for Dairyland Power Utilities would be the same as for Alternative C and between costs for Alternatives A and D.

Land requirements and relocations for Barron Alternative B are summarized in Table 2.2.4.7-3.

Table 2.2.4.7-3

Barron Alternative B (Long South Bypass)
Land Requirements and Relocations Summary

Type of Land	Required Acres	Required Hectares
Agricultural	405.3	164.0
Wetlands	38.7	15.7
Wooded	58.5	23.7
Other	70.1	28.4
Total New Right-of-Way	572.6	231.7
Relocations	3 Business, 11 Residential	
Dairyland Power Cooperative	$330,000	

C. Purpose and Need Analysis

Like Barron Alternative A, Barron Alternative B meets the purpose and need criteria (1. through 4.). The public response and support for Alternative B differs slightly from the public support for Alternative A.

5. Public Support

Written comments following the PIMs supported Barron Alternative B because it impacted fewer residents. Others commented that this alternative is too long and people traveling though the area would still go through the city, rather than use the bypass. The US 8 Coalition voted in favor of this alternative.

6. Summary of Purpose and Need

Table 2.2.4.7-4 summarizes the purpose and need criteria for Barron Alternative B. This alternative was carried forward for detailed study because it meets the criteria for purpose and need.

Table 2.2.4.7-4

Barron Alternative B (Long South Bypass)
Summary Purpose and Need Analysis

Criteria		Barron Alternative B (Long South Bypass)
Addresses the Corridors 2020 Plan by accommodating future LOS needs		Yes
Long-term planning and corridor preservation		Yes
Reduce crash rates		Yes
Correct substandard roadway items		Yes
Public support from:		
	City of Barron	No
	Area residents and businesses	Yes and No
	US 8 Coalition	Yes

- **Barron Alternative C (North Bypass) (carried forward for detailed study)**

A. Description of Alternative

Alternative C is a north bypass of Barron. From Sweeny Pond Creek to 11th Street, the alignment shifts slightly south of existing US 8 to avoid impacts to the Vermillion River. At 11th Street, the alignment runs northeast about 3.0 miles (4.9 km) to 14th Street and then turns east for about 2.1 miles (3.3 km) to 16th Street. The bypass is approximately 1.5 miles (2.4 km) north of existing US 8. At 16th Street, the route swings to the southeast, crosses the Soo Line Railway, and rejoins existing US 8 near County O. Between County O and US 53, US 8 follows the existing alignment. The total length of this segment is 9.7 miles (15.6 km), with 8.6 miles (13.8 km) of new roadway. Figure 2.2.4.7-1shows this alternative.

Access to existing US 8 from the bypass corridor would be provided by at-grade intersections near Sweeny Pond Creek and at 13 ½ Avenue (County W). An interchange would provide access at WIS 25 (N). The existing interchange at the US 53 junction would remain. Grade-separated crossings would be provided but no direct access onto the expressway. Existing US 8 would become a local street from Sweeny Pond Creek to 17th Street. A grade separation of the bypass would be provided for the Soo Line Railroad. This alternative also constructs a frontage road between 15th Avenue and WIS 25 (N) on the north side of the bypass, with 14th Street connecting to this frontage road.

B. Projected Effects of Alternative

Between Sweeny Pond Creek and County O, Alternative C runs off-alignment and would require construction of a new four-lane divided roadway on new right-of-way. At County O, the alignment follows the existing alignment and the amount of right-of-way required for this section includes only the portion of roadway that falls outside of the existing right-of-way. Barron Alternative C would require a new crossing and structure at the Yellow River. It would also require new structures over the Sweeny Pond Creek and the Red Cedar River. Other structures would be required at County T, 16th Street, 14 ½ Avenue, 19th Avenue, over the Soo Line Railroad, and at WIS 25 (N).

Barron Alternative C does not impact any historic or archaeological sites. Of all the Barron alternatives, Alternative C requires the largest amount of agricultural land. About 70 percent of land required for this alternative is agricultural. However, Alternative C impacts the least amount of wooded acreage and wetlands. The cost of relocation impacts related to the Dairyland Power Utilities is the same as Alternative B and falls between the costs for Alternatives A and D.

Table 2.2.4.7-5 describes the land requirements and relocations for Barron Alternative C.

Table 2.2.4.7-5

Barron Alternative C (North Bypass)
Land Requirements and Relocations Summary

Type of Land	Required Acres	Required Hectares
Agricultural	524.5	212.3
Wetlands	40.4	16.3
Wooded	37.7	15.3
Other	62.7	25.4
Total New Right-of-Way	665.3	269.2
Relocations	1 Business, 7 Residential	
Dairyland Power Cooperative	$330,000	

C. Purpose and Need Analysis

Similar to Barron Alternatives A and B, Barron Alternative C meets the purpose and need criteria (1 through 4.). The public response and support for Alternative C differs from public support for the other Alternatives.

5. Public Support

A few comments of public support were written for Barron Alternative C indicating that it would be a good alternative that would best serve the industrial development to the north. Other comments were received indicating a north bypass would destroy good farmland.

6. Summary of Purpose and Need

Table 2.2.4.7-6 summarizes the purpose and need criteria for Barron North Bypass Alternative C. This alternative was carried forward for detailed study because it meets the criteria for purpose and need.

Table 2.2.4.7-6

Barron Alternative C (North Bypass)
Summary Purpose and Need Analysis

Criteria		Barron Alternative C (North Bypass)
Addresses the Corridors 2020 Plan by accommodating future LOS needs		Yes
Long-term planning and corridor preservation		Yes
Reduce crash rates		Yes
Correct substandard roadway items		Yes
Public support from:		
	City of Barron	No
	Area residents and businesses	Yes and No
	US 8 Coalition	No

- **Barron Alternative D (Through-town)** (carried forward for detailed study)

A. Description of Alternative

Barron Alternative D remains on existing alignment from Sweeny Pond Creek to US 53. From Sweeny Pond Creek to about a ½ mile (0.8 km) east of County T, the roadway is a four-lane divided rural highway. From this point west to near 17th Street, the roadway narrows to a 100-foot (30.5 m) urban roadway that continues through the city of Barron. East of 17th Street it transitions to a rural roadway and continues to US 53 as a four-lane rural expressway. Through the city of Barron, Alternative D would be a four-lane divided urban roadway with a raised median, designated left and right turn lanes, and curb and gutter. The total length of this segment is 8.4 miles (13.5 km). Figure 2.2.4.7-1shows this alternative.

In Alternative D, several side roads within the city of Barron would have access to US 8 removed by use of cul-de-sacs. At-grade intersections would remain at some locations. No interchanges are planned for this Alternative. The intersection of US 8 and WIS 25 (N) will remain signalized while the other intersections in this Alternative segment would be unsignalized.

B. Projected Effects of Alternative

Alternative D follows the existing US 8 alignment from Sweeny Pond to US 53. The only right-of-way that would be required is where the new portion of roadway falls outside of the existing right-of-way. The minimum cross section required through the city of Barron is 100 feet (30.5 m), and the existing width between building faces is approximately 85 feet (25.9 m). New structures would be needed over Sweeny Pond Creek, the Yellow River, and the Red Cedar River.

Alternative D does not affect any archaeological sites; however it does affect historic buildings that are eligible for the NRHP. There are three historic buildings located near each other in downtown Barron. The Through-town Alternative was shifted north to avoid Hefner's Opera Block and The Stebbins House, both located on the south side of US 8. The third property, the Carnegie Library, is located on the north side of US 8 and would require relocation. Of all the Barron alternatives, this alternative impacts the least amount of agricultural land, wetlands and wooded acreage and it also has the lowest Dairyland Power utility costs. Alternative D has the highest number of business and residential relocations. Because buildings are close to the existing roadway, every property on the north side of US 8 for seven city blocks would require relocation.

Land requirements and relocations are quantified in Table 2.2.4.7-7.

Table 2.2.4.7-7

Barron Alternative D (Through-town)
Land Requirements and Relocations Summary

Type of Land	Required Acres	Required Hectares
Agricultural	58.1	23.5
Wetlands	9.1	3.7
Wooded	10.4	4.2
Other	147.4	59.7
Total New Right-of-Way	225	91.1
Relocations	17 Businesses, 44 Residential	
Dairyland Power Cooperative	$100,000	

C. Purpose and Need Analysis

1. Corridors 2020 and Future LOS

Just west of the city of Barron, traffic volumes will increase from 11,600 ADT to about 16,800 ADT and just east of the city, traffic volumes increase from approximately 11,300 to 18,000 ADT. Within the Barron city limits, traffic volumes are projected to increase from 13,900 ADT to 21,000 ADT. According to the WisDOT's FDM, a four-lane divided roadway should adequately handle between 8,700 and 44,000 ADT. Therefore, a four-lane expansion will give this section the capacity to handle projected traffic.

2. Long-Term Planning and Corridor Preservation

This alternative addresses long-term planning by defining the future location and type of access along US 8. This information can be used by local governmental units along the corridor in developing local transportation and comprehensive plans and determining the appropriate location of transportation supportive land uses. This alternative identifies a future corridor for US 8 that can be preserved through the use of expressway/freeway designation, official mapping, and access management.

3. Crash Rate Deduction

Crash rates for this alternative will likely decrease. The crash rates for this segment exceeded the statewide average crash rates for urban streets in four of the five years that crashes were analyzed. Crash statistics show that converting a four-lane undivided roadway to a four-lane divided roadway will decrease crash rates. Between 1996 and 2000, Wisconsin's statewide average crash rate on four-lane undivided roadways was 316 per HMVM, and on four-lane divided roadways, it was 110 per HMVM. Many of the crashes in this segment could be attributed to the high number of access points and lack of turn lanes. With this alternative, access would be limited. Therefore, crash rates may also decrease because of the elimination of a number of access points.

4. Correct Substandard Roadway Items

Barron Alternative D would correct substandard roadway items that are on US 8. Currently, there are four areas that were found to have deficient SSD requirements between Sweeny Pond Creek and US 53. Alternative D will correct these existing roadway deficiencies.

5. Public Support

The City of Barron passed a motion stating that the through-town route was not in the best interest of the city. Many written comments opposing the through-town route were received after public information meetings. A number of business owners do support Barron Alternative D. The US 8 Coalition does not support Barron Alternative D.

6. Summary of Purpose and Need

Table 2.2.4.7-8 summarizes the purpose and need criteria for Barron Alternative D. This alternative was carried forward for detailed study because it meets the criteria for purpose and need.

Table 2.2.4.7-8

Barron Alternative D (Through-town)
Summary Purpose and Need Analysis

Criteria		Barron Alternative D (Through-town)
Addresses the Corridors 2020 Plan by accommodating future LOS needs		Yes
Long-term planning and corridor preservation		No
Reduce crash rates		Yes
Correct substandard roadway items		Yes
Public support from:		
	City of Barron	No
	Area residents and businesses	Yes and No
	US 8 Coalition	No

2.2.5 **US 63 North Bypass** (dismissed from further consideration)

Another alternative in the Turtle Lake area of Segment V is a US 63 bypass around the north side of the Village of Turtle Lake. Figure 2.2.5-1 illustrates this alternative.

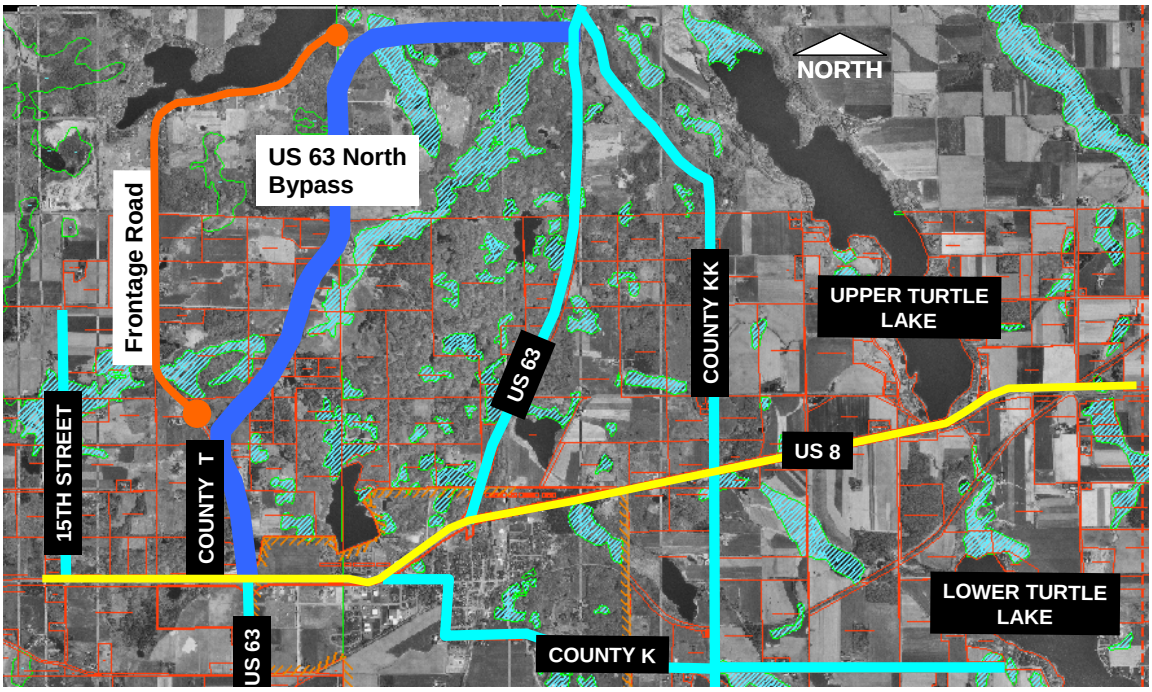

Figure 2.2.5-1 US 63 North Bypass Alternative

A. Description of Alternative

The US 63 North Bypass Alternative would be a two-lane controlled-access corridor that connects US 63 (S) and US 63 (N) on the north side of Turtle Lake. Instead of going through Turtle Lake, US 63 traffic would be routed around the north side of the village.

The US 63 North Bypass Alternative begins at the US 8/US 63 (S)/County T intersection and runs north along County T for 0.6 miles (1.0 km). The roadway then runs northeast for about 1.5 miles (2.3 km) to County Line Street (Polk-Barron Street). At this point, the road runs along the same

alignment as Polk-Barron Street and continues north to Horseshoe Lake Road. At Horseshoe Lake Road, the route continues east along 16th Avenue to US 63 (N). The remaining segments of County T and Horseshoe Lake Road would be used as a service road for traffic to access Horseshoe Lake.

At-grade intersections would likely remain at 16th Avenue and US 63 (N). An interchange would be located at the US 8/US 63 (S)/County T junction.

The total length of this segment, from the US 8/US 63 (S)/County T intersection to the US 63 (N) junction, is approximately 4.4 miles (7.0 km).

B. Projected Effects of Alternative

The US 63 North Bypass Alternative would follow the existing alignment of County T until it veers off to the northeast. From here, a new roadway would be constructed to Polk-Barron Street, where the existing pavement would be utilized. The US 63 North Bypass would then follow along Horseshoe Lake Road's alignment to US 63 (N). Although this roadway would utilize some of the existing roadway corridors, this alternative would require upgrading the county and local existing roads to state highway standards. Generally, state highway standards require wider shoulders than county highways. Therefore, upgrading County T to state highway standards would require more right-of-way and new structures would be required over wetlands along Horseshoe Lake Road. This alternative would not impact any historic or archaeological sites but would impact some forested and open areas.

C. Purpose and Need Analysis

1. Corridors 2020 and Future LOS

US 63 is designated as a 2020 Connector Route. Traffic volumes on US 63 are projected to increase from about 4,300 ADT in 2000 to about 6,900 ADT in 2030. Traffic volumes through the urban segment of Turtle Lake are projected to grow from about 12,200 ADT to about 16,200 ADT in 2030. WisDOT's 2002 Origin-Destination Study, approximately 30 percent of the total traffic passing through Turtle Lake and going to and from destinations within the village would use a US 63 bypass around the north side of Turtle Lake.

If the proposed US 63 corridor roadway is upgraded to meet the FDM standards for a 2020 Connector Route, it would have enough capacity to handle the traffic and remove approximately one third of the traffic from within the village of Turtle Lake. It does not, however, address the purpose and need criteria for Corridors 2020 with regard to US 8.

2. Long-Term Planning and Corridor Preservation

The US 63 North Bypass Alternative provides for additional capacity on US 63. However, it does not provide long-term planning and corridor preservation for US 8 and does not anticipate the additional traffic on the project corridor. Therefore, this alternative does not meet this purpose and need criterion.

3. Crash Rate Reduction

The US 63 North Bypass Alternative would reroute US 63 traffic around the village of Turtle Lake instead of through town. Therefore, there would be less traffic through the village and this could potentially decrease the number of crashes and provide a safer US 8 corridor within Turtle Lake.

4. Correct Substandard Roadway Items

This alternative would not correct the existing substandard US 8 roadway items because it constructs a new US 63 roadway north of Turtle Lake. Therefore, it does not meet substandard roadway items purpose and need criterion.

5. Public Support

Residents of Turtle Lake have expressed concern about US 63 traffic traveling through the village. Some feel that the operational problems of US 8 in Turtle Lake are mainly due to tourist traffic on Friday nights and Sunday afternoons during the summer. Many have stated that if US 63 traffic was not routed through Turtle Lake, US 8 would operate better and additional improvements to US 8 would not be necessary. This alternative was developed in response to comments indicating that a US 63 bypass could alleviate traffic problems through the Village of Turtle Lake. Other comments were concerned that US 8 safety issues still needed to be addressed.

Table 2.2.5-1 summarizes the purpose and need criteria for the US 63 North Bypass Alternative.

Table 2.2.5-1

US 63 North Bypass Alternative
Summary Purpose and Need Analysis

Criteria	US 63 North Bypass Alternative
Addresses the Corridors 2020 Plan by accommodating future LOS needs	No
Long-term planning and corridor preservation	No
Reduce crash rates	Yes
Correct substandard roadway items	No
Public support - Area residents and businesses	Yes and No

This alternative was not carried forward because it does not meet the criteria for the purpose and need.